PLEASE LEAVE THIS MANUAL WITH THE *OSO* UNIT AFTER INSTALLATION

Ecoline Geo RI HP

INSTALLATION MANUAL

The Ecoline GEO is an indirect unvented cylinder designed and approved for use with a heat pump. The heating coil has been specifically designed for this heat source, information is included in this manual to link the cylinder with the heat pump. This cylinder is manufactured and approved in accordance with EN 12897:2006. This manual gives detailed advice for installation and should be read carefully prior to fitting any unvented unit. Where components are supplied only for indirect units, this is clearly shown.
This OSO cylinder must be installed by a competent person and be installed in compliance with the OSO Installation and Maintenance Instructions, all current legislation, codes of practice and regulations governing the installation of unvented hot water cylinders in force at the date of installation.

Components supplied with the unit for site fitting

(See also page 2 for component list)

* Multibloc valve, includes pressure reducing valve, line strainer, balanced cold water take off, ***(for shower or bidet only)*** check and expansion valve.
* Tundish
* 1/2"F x 15 x 15 tee piece
* Flexible hose - 220 mm
* 1" x 22mm Elbow / Drain Cock
* 2 sensor pockets
* Motorised valve
* Expansion vessel.

Health and Safety
Manual Handling Operations Regulations 1992 defines manual handling as: "any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying or moving thereof) by hand or bodily force". The Regulations set no specific requirements such as weight limits. However common sense still has to be used based on an ergonomic approach for each individual.

DIMENSIONS AND WEIGHTS TABLE 1

PRODUCT REF.	200	250	300
HEIGHT	1150	1400	1600
DIAMETER	580	580	580
WEIGHT EMPTY	50	55	65
MAX WEIGHT FULL	241	292	341

Components factory fitted

* Immersion heater
* Thermostats / thermal cut-out
* Temperature and pressure relief valve.

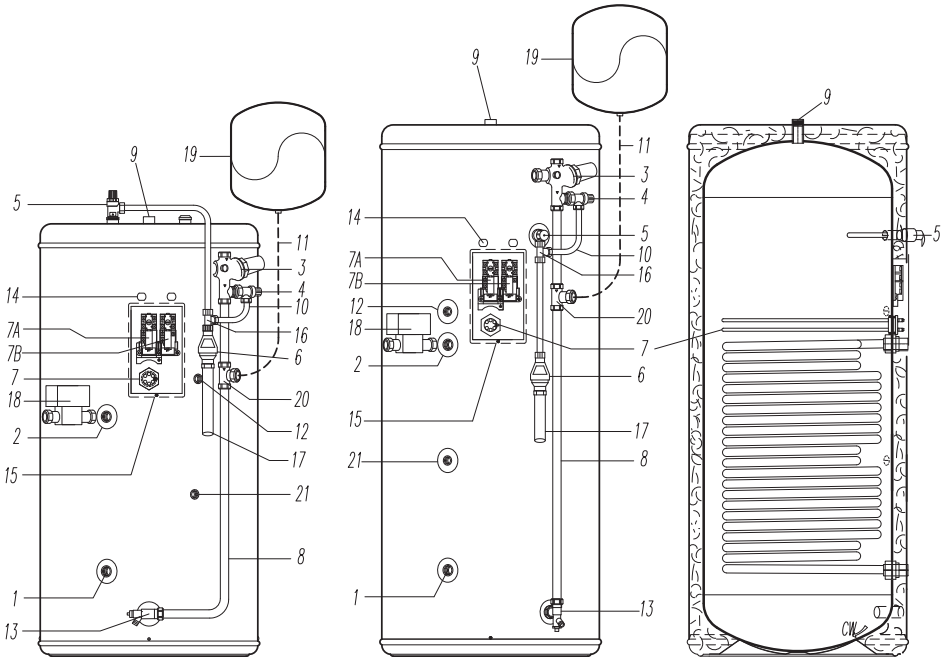
Installation details

The OSO unvented unit is designed for use with supply pressure up to 10 bar. For pressures over 10 bar an additional pressure reducing valve must be fitted in the supply pipe to the unit.

142039-01 GEO 11-2013

General Layout Fig: 1

EXTERNAL VIEW 200 L. EXTERNAL VIEW 250 & 300 L. CUTAWAY VIEW



KEY		Part No.
1	Return 3/4" BSPF*	
2	Flow 3/4" BSPF*	
3	Pressure Reducing Valve with Check Valve and Balanced Cold Connection	355013
4	Expansion valve	510505
5	Temperature and Pressure Relief Valve	550853
6	Tundish	219002
7	Immersion Heater	71259
7A	Thermostat Immersion Heater	80020
7B	Thermostat Heat Pump	80030
8	Cold Feed Tube (Not supplied - see Table 2)	

KEY		Part No.
9	Hot Water Outlet 3/4" BSPF	
10	Flexible Hose	202108
11	Flexible Hose for Expansion Vessel (Not supplied)	
12	Sensor Pocket 1/2"	
13	Elbow / Drain Cock	250445
14	Cable Entry	
15	Electrical Box	
16	Tee Piece	250006
17	Discharge Pipe (Not supplied)	
18	Motorized Valve M (Not Factory Fitted)	92000
19	Expansion vessel	AX 19
20	Tee Piece for Exp. Vessel (Not supplied)	
21	Sensor Pocket 1/2"	

TABLE 2

Size	Lenght of tube (ø22) mm	Exp. vessel pre charge
200	810	3,5 bar
250	1060	3,5 bar
300	1300	3,5 bar

COLD WATER SUPPLY

1. To obtain the best performance from your OSO unvented system it is advisable to feed the unit with an uninterrupted supply.
2. Before connecting to the multibloc, flush the cold supply pipework of all flux and debris.
3. Locate the water heater in a suitable position to facilitate the installation of the cold water supply, discharge fittings and pipework. Also take into account access to the immersion heaters and the commissioning valve.
4. Fit both 1/2" male heat pump sensor pockets to the Sensor Pocket bosses (12&21).

200 litre cylinder:

5. Fit the combined male elbow drain cock to cold supply point (13), so that the compression fitting is horizontal point to the right.
6. Fit the length of copper tube 22mm specified in table 2 to the cold feed elbow with a right angle bend as shown to include a T piece for the expansion vessel.
7. Fit the pressure reducing valve to the top of the copper tube so that the black knob is facing right.
8. Fit a 15mm copper tube to the T & P valve and bend around the top of the cylinder to pass close and 50 mm to the left of the cold feed pipe. Cut the pipe off 700 mm from the floor. Fit the compression end of the T piece to the bottom of the 15mm copper pipe with the female end pointing down and the right angle connection pointing 45° to the right.
9. Remove the nut and ring from the top connection of the tundish and screw the male thread into the female thread of the T piece.

250 & 300 litre cylinder:

5. Fit the combined male elbow drain cock to cold supply point (13), so that the compression fitting is vertical.
6. Fit the length of copper tube 22mm specified in Table 2 to the cold feed elbow (see 5 above) to include a T piece for the expansion vessel.
7. Fit the pressure reducing valve to the top of the copper tube so that the black knob is facing right.
8. Fit the female outlet of the tee piece to the temperature and pressure relief valve (5) with the horizontal connection facing right at approx. 45°.
9. Fit the tundish to the T piece using a short length of copper tube.

10. Remove the appropriate nuts and rings and connect the flexible hose to the expansion relief valve and the right pointing T-piece connection.
11. If a balanced mains pressure cold water supply is required to a shower or bidet (over rim type only), remove the blanking cap from the pressure reducing valve (3) and connect to the shower or bidet cold supply. *Do not use the balanced cold connection to feed bath taps as this can reduce the flow available to the unvented cylinder.*
12. Connect the cold supply to the Multibloc (3).
13. Fit the expansion vessel to the wall close to the water heater using the enclosed mounting bracket. Connect the expansion vessel hose to the T piece in the cold feed pipe to the cylinder. The expansion vessel is supplied with the OSO unit, fit as shown on page 2.

Hot water supply

14. Connect the hot water supply pipe to the outlet (9). Ensure connection is water tight. Secondary return (optional)
15. Connect secondary return (if required) by fitting a T-piece (not supplied) into the cold feed tube (8) according to diagram on page 16.

Discharge pipe

16. Connect the discharge pipe from the tundish (6). This must have a continuous fall and be fitted in accordance with The Building Regulations (see page 16). The tundish should be installed away from electrical devices.

Primary flow & return & motorised valve - heat pump

17. The heat pump primary flow and return connections should be made to the unit. The motorised valve must be fitted either on the flow or return of the primary water heating circuit. The primary flow and return connections are ¾" female. The valve has 22mm copper connections. The direction of the primary flow in the coil is top to bottom.

COMMISSIONING

Filling up

1. Open a hot tap.
2. Open the cold water supply valve
3. when water flows from hot tap, close the tap
4. Allow the system to stabilize for 5 minutes
5. Open each hot water tap in turn to expel air from the system pipe work.
7. Check for leaks.
8. Manually operate Temperature and Pressure Relief Valve (5) to ensure free water flow through discharge pipe. (Turn knob to left.)

Draining/flushing

1. Turn off mains supply.
2. Connect hose pipe to drain cock at base of cylinder.
3. Open hot tap. Open drain valve and open temperature & pressure relief valve.
4. Allow to drain. Follow commissioning instructions (above) to refill.

SAFETY AND MAINTENANCE

Safety Cut-out

1. The safety cut-out operates if:

a. Wiring is incorrect.

b. The immersion heater thermostat or cylinder thermostat fails.

c. Thermostat is set too high.

2. Remember before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the electrical box lid.
3. Reduce thermostat setting and press the reset button. After adjustments are completed, ensure the lid to the electrical box is replaced correctly and the retaining screw is fitted.
4. If still out of operation, contact installer.

RECOMMISSIONING INSTRUCTIONS

Cold or tepid water discharge from tundish - The tundish should be installed away from electrical devices.

1. Close cold water supply valve
2. Open a hot tap.
3. Repressurise the expansion vessel air charge to its set level.
4. Close hot tap
5. Open the cold water supply valve

Hot water discharge from tundish

This indicates a malfunction of a thermal cut-out, operating thermostat or the combined temperature and pressure relief valve. Turn off the electrical supply to the immersion heater and also isolate an indirect unit from the boiler. Contact the installer or competent engineer.

TABLE 3

Product code	Max. design pressure	Operating pressure CW feed & coil	Pressure drop primary heater	Temp. / pressure relief valve	Safety valve Pressure / conn.	Exp. vessel capacity
HP GEO 200	8 bar	cw in 3 bar, coil 2.5 bar	0,2 bar	90-95°C / 10 bar	8 bar / 15mm - 1/2"	19 l.
HP GEO 250	8 bar	cw in 3 bar, coil 2.5 bar	0,2 bar	90-95°C / 10 bar	8 bar / 15mm - 1/2"	19 l.
HP GEO 300	8 bar	cw in 3 bar, coil 2.5 bar	0,2 bar	90-95°C / 10 bar	8 bar / 15mm - 1/2"	19 l.

INSTALLATION AND SERVICING INSTRUCTIONS

Positioning the unit
The water heater should be fitted level on a hard surface with sufficient load strenght to take the full weight of the cylinder (see table 1 page 1). Adjustable feet are fitted to ensure the unit can be adjusted to a level position. There is no limitations regarding the fitting distance from walls etc., but it is strongly recommended to ensure easy access to all pipe fittings etc. There should be at least 80 cm of free space in front of the water heater to ensure easy access for servicing and maintenance.

Protection from frost
If the water heater is in danger of being exposed to frost while not operating under electric power, the unit must be drained to avoid damage. Make sure the electric power is turned off before draining, otherwise the heating elements can be damaged and the warranty is void. Draining instructions, see "Commissioning" on page 4.

Cold water inlet control (Multibloc) See Page 2 Items 3 - 4
This combination consists of a pressure reducing valve with integral strainer, check valve and expansion valve with stainless steel seat. The pressure settings are set and locked in the factory and are shown on the top of each valve. For optimum performance the following installation instructions should be complied with.

Installation
1. Cold water supply to be 22mm nominal size.
2. Flush supply pipework before connection to remove all flux and debris prior to fitting the inlet controls. Failure to do this may result in irreparable damage to the controls and will invalidate the warranty.
3. The "MULTIBLOC" can be fitted in any orientation to suit the installation as long as it is fitted in the correct flow direction. Check the flow arrows on the side of the body.
4. The expansion valve should be either horizontal or pointing downwards. If fitted upwards, debris may be deposited on the seat and cause fouling of the seat when the valve operates. Check direction of flow arrows.
5. The black plastic plugs in the body are pressure gauge connections to enable pressure monitoring to be carried out, should the system develop a fault. It is recommended that these be accessible (the pressure reducing valve has two - only one need be accessible).
6. Expansion relief drain pipework must be connected to a safe visible discharge point via a tundish and the pipework must have a continuous fall.
7. The pressure reducing valve has two outlets, the second one is for a balanced cold water supply, to a shower or a bidet ***(over rim type only, ascending spray type requires type AA, AB or AD air gap). (Major shower manufacturers advise fitting a mini expansion vessel in the balanced cold supply to accommodate thermal expansion and prevent tightening of shower controls).***
   Using the balanced cold connection to feed bath taps can reduce the flow available to the unvented cylinder. If not required the balanced cold supply is blanked off.
   The Benchmark Log Book enclosed with the cylinder should be completed after commissioning of the system and handed to the customer for future use.

TABLE 4

Product code	Actual capacity (l.)	Weight empty	Weight full	Heat-up (mins) coil	Rating (kW) coil	Heat loss kWh/24h	Primary flow rate	Hot Water Capacity
HP GEO 200	197	50	241	20,8	26,9	1,9	15 l/min. - 80°C	179
HP GEO 250	245	55	292	23	29,7	2,1	15 l/min. - 80°C	209
HP GEO 300	286	65	341	27	27,1	2,3	15 l/min. - 80°C	237

MAINTENANCE

It is recommended that annually a competent person
(a) Inspects and cleans the line strainer.
(b) Checks the operation of the expansion relief valve and temperature & pressure relief valve.
(c) Recommissions the cylinder in accordance with the instructions on page 4.

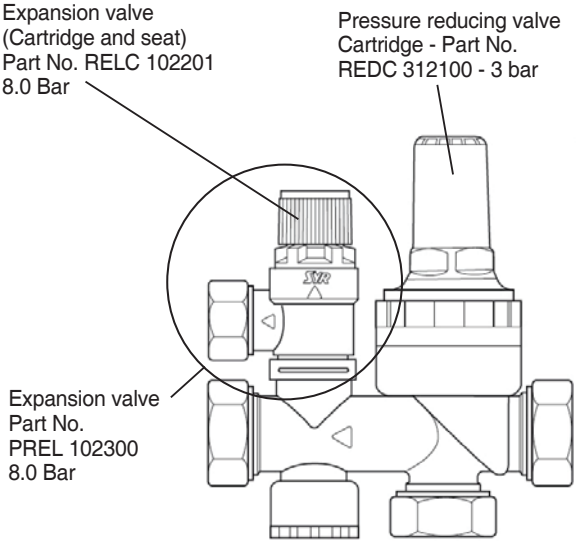
Corrosion resistance
Duplex stainless steel is naturally corrosion resistant to mains water supply. No specific maintenance is required to maintain this resistance. Please see guarantee terms for permissable water content. Please note: OSO cylinders are not guaranteed for use with a private water supply.

The immersion heater can be removed to provide visual inspection access to the cylinder.

Pressure reducing valve
1. Isolate the cold water supply and open a ground floor cold tap.
2. Unscrew the pressure reducing cartridge
3. Clean the filter mesh and the cartridge under running water.
4. Replace cartridge ensuring that strainer is correctly located and reassemble the unit. Pressure Reducing Valve cartridge and strainer Part No. REDC312100 - 3 Bar.

Expansion relief cartridge
1. Isolate the cold water supply and open a ground floor cold tap.
2. Unscrew blue expansion relief headwork from valve body.
3. Clean valve seat face and seating - do not scratch or damage either seat face or seating.
4. Refit in reverse order. Do not overtighten Expansion valve cartridge and seat Part No. RELC 102201 8.0 Bar. Complete Expansion Valve Part No. PREL 102300 8.0 Bar.

SPARE PARTS



Tundish
Install theTundish in a vertical position within a maximum of 600mm from the temperature and Pressure Relief Valve drain connection. Ensure the expansion relief pipework discharges through the tundish. Tundish pipework must be 22mm with a minimum vertical length of 300mm below tundish. Maximum permitted length of 22mm pipework is 9m. Each bend or elbow is equivalent to 0.8m of pipework.
All pipework must have continuous fall and discharge in a safe, visible position. If any doubt, refer to *Building Regulation G3.*

ELECTRICAL INSTALLATION

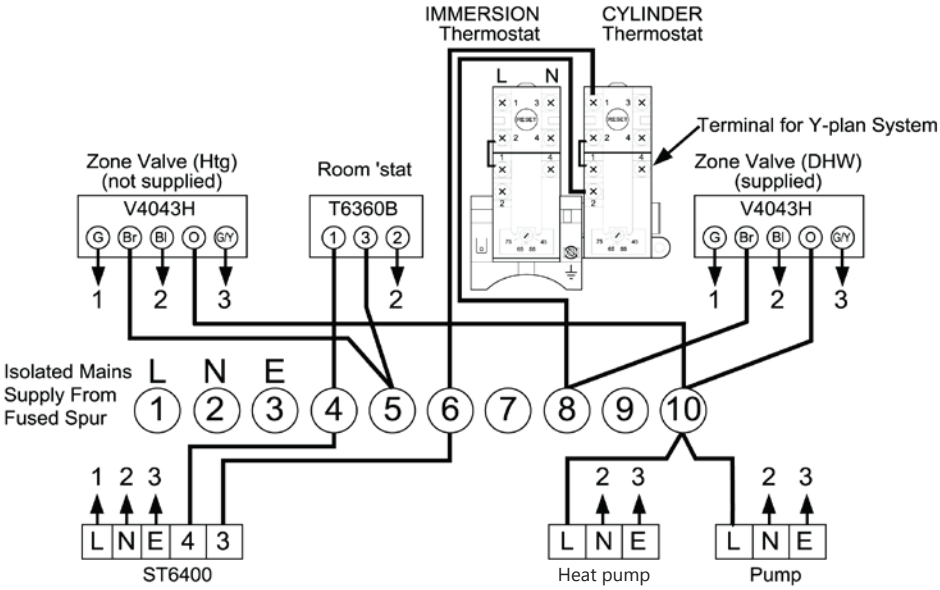
Immersion heater
Ecoline GEO is provided with a single immersion heater located above the heating coil. The element is designed as an auxiliary heater to supplement the energy from the heat pump if this is insufficient to heat the domestic water to the required level.

Wiring instructions for the immersion heater is located on the reverse side of the lower lid. Follow the wiring instructions connecting the live, neutral and earth as indicated. The electrical connection to the immersion heater must conform to current IEE wiring regulations. The unit must be permanently connected to the electrical supply through a double-pole linked switch with a minimum break capacity of 13 amps. All internal wiring is factory mounted. Each immersion heater has a working thermostat adjustable between 40°C - 70°C. A safety cut-out is also incorporated within the thermostat and will operate at 85°C ± 3°C. Should this happen, press the reset button.
Important: Before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the lid. Ensure the lid to the electrical box is replaced correctly and the retaining screw is fitted.

Heating coil
Heat sources to unvented hot water cylinders must be controlled by a thermal cut-out as well as a thermostat. The OSO Ecoline GEO with sensor bosses and pockets to house temperature sensors linked to the heat pump.

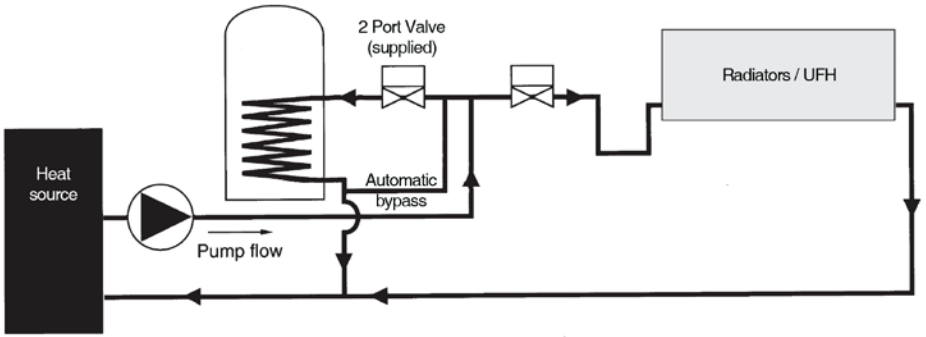
OSO Hotwater (UK) Limited can not be responsible if alternative wiring plans are used.
Important: Before resetting the safety cut-out or altering the thermostat setting isolate electrical supply to the unit before removal of the lid.

S Plan Wiring Layout



The wiring plan shown is based on the use of a 10-way Junction Box (Honeywell Part no. 42002116-001)
Junction Box terminal 10 is switched live and, if needed, terminal 9 is pump live.

S Plan System Schematic



If using a 6-wire 28mm or 1" BSP V4043H on either circuit the white wire is not needed and must be made electrically safe.

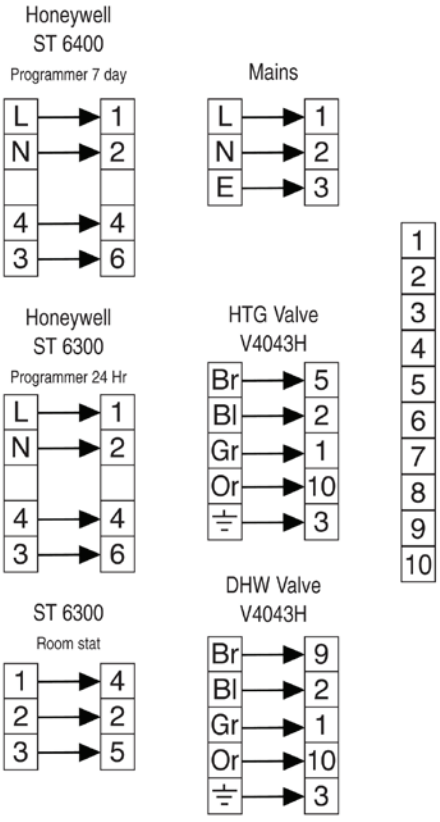
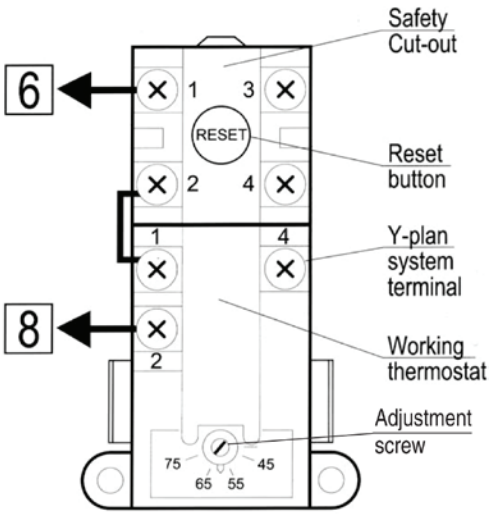


FIGURE 2



Cylinder thermostat located in electrical box

Electrical spare parts:

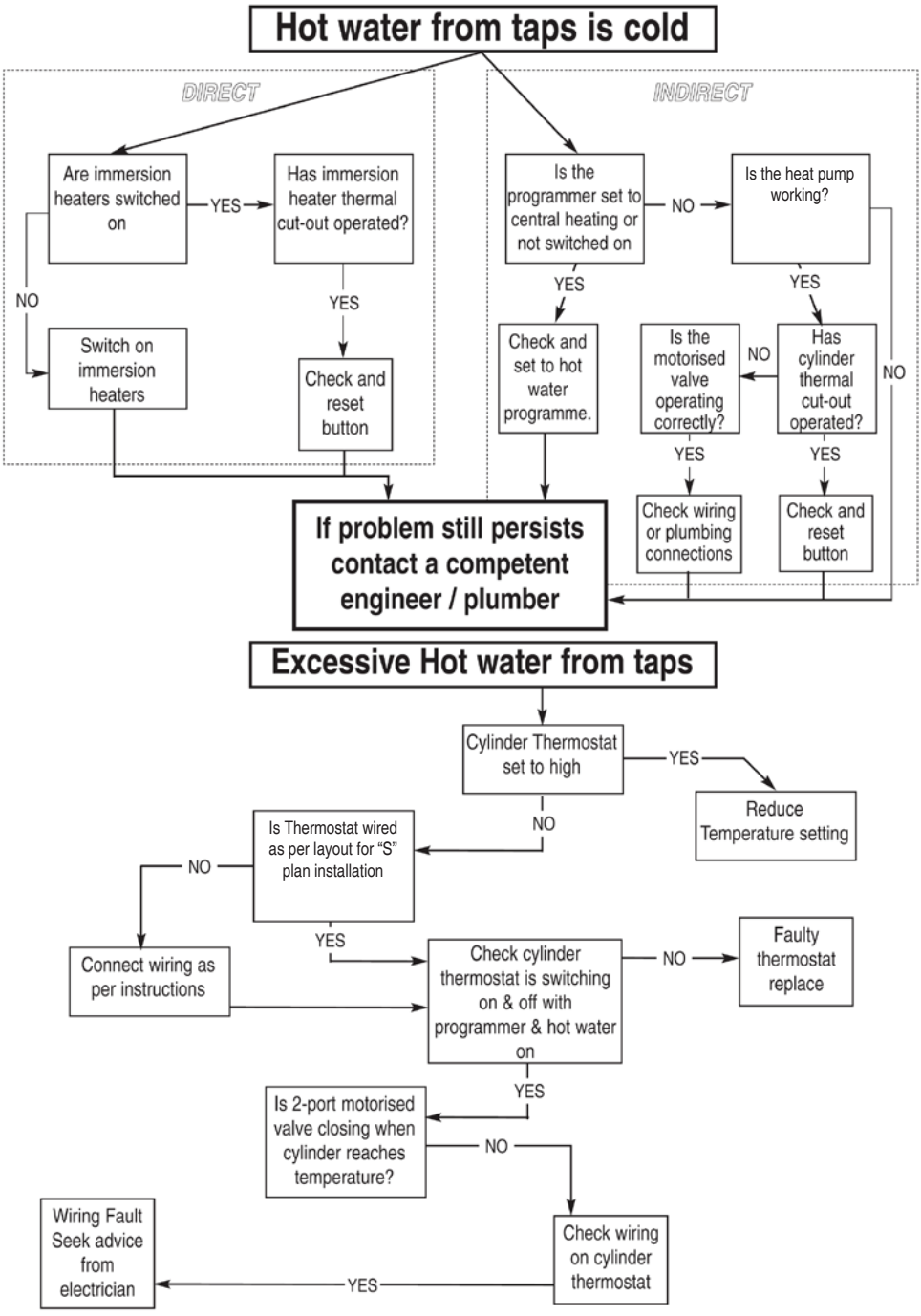
Direct units		Indirect units	
Thermostat	80020	Right thermostat	80030
		Left thermostat	80020
Immersion heater	71259	Immersion heater	71259

OSO FAULT FINDING GUIDE

FAULT	POSSIBLE CAUSE	REMEDY
No water flow from hot taps	1. Mains supply off. 2. Strainer blocked. 3. Cold water inlet Pressure Reducing Valve incorrectly fitted.	1. Check and open stopcock 2. Turn off water supply. Remove strainer and clean. (See Pressure Reducing Valve page 6 Installation Manual) 3. Check and refit as required, (see item 3 page 5 of installation manual).
Water from hot taps is cold.	1. Heat pump not activated. 2. Immersion heater not switched on. 3. Immersion heater thermal cut-out has operated. 4. Programmer set to central heating or not switched on. 5. Cylinder thermal cut-out has operated. 6. Motorised valve not operating correctly.	1. Check Heat Pump operation. If fault suspected consult installer or heat pump manufacturer. 2. Check and switch on. 3. Check and reset button (see thermostat diagram page 9 and safety cut-out on page 4 of installation manual). 4. Check and set to hot water. 5. As at No. 2. 6. Check wiring and/or plumbing connections to motorised valve. (See page 8 of the installation manual).
Intermittent water discharge.	1. Reduced expansion vessel charge. 2. Thermal control failure. (Note Water will be hot).	1. Repressurize expansion vessel. Follow recommissioning instructions on page 4. 2. Switch off power to immersion heater(s) and boiler supply to the unit. When discharge has stopped, check thermal controls, replace it faulty. Contact a competent person.
Continuous water discharge.	1. Cold water inlet Pressure Reducing Valve not working. 2. Temperature and pressure relief valve faulty. 3. Expansion relief valve not working correctly.	1. Check pressure from valve if greater than 2.1 bar replace. (See page 6 of installation manual). 2. As No. 2 of above. 3. Check and replace if faulty. (See page 6 of installation manual).

NOTE: Disconnect electrical supply before removing any electrical equipment covers

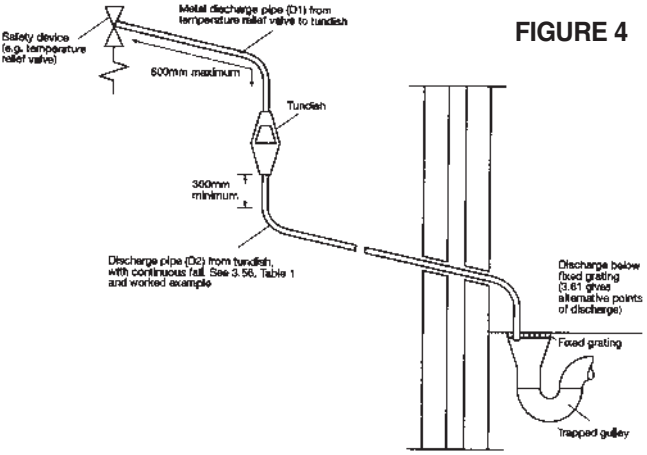
OSO FAULT FINDING GUIDE



If in doubt at any stage you must consult a qualified electrician

ALTERNATIVE DISCHARGE

FIGURE 4

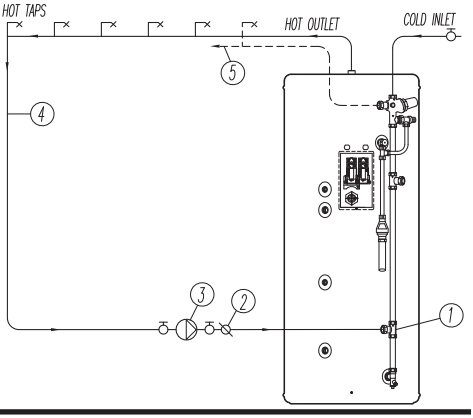

Metal discharge pipe (D1) from temperature relief valve to tundish
Safety device (e.g. temperature relief valve)
600mm maximum
Tundish
300mm minimum
Discharge pipe (D2) from tundish, with continuous fall. See 3.56, Table 1 and worked example
Discharge below fixed grating (3.61 gives alternative points of discharge)
Fixed grating
Trapped gulley

Downward discharges at low level, i.e. up to 100mm above external surfaces such as car parks, hard standings, grassed areas etc, are acceptable providing that where children may play or otherwise come into contact with discharges, a wire cage or similar guard is positioned to prevent contact, whilst maintaining visibility.

Discharge at high level, i.e. into a metal hopper and metal down pipe with the end of the discharge pipe clearly visible (tundish visible or not) or onto a roof capable of withstanding high temperature discharges of water and 3m from any plastics guttering system that would collect such discharges (tundish visible). Where a single pipe serves a number of discharges, such as in blocks of flats, the number served should be limited to not more than 6 systems so that any installation discharging can be traced reasonably easily. The single common discharge pipe should be at least one pipe size larger than the largest individual discharge pipe to be connected. For further information contact your Building Control Office or The British Board of Agrément.

SECONDARY RETURN

FIGURE 5



1. Secondary Return Fitting (T piece not supplied)
2. Non Return Valve
3. Circulation Pump
4. Secondary Return Line
5. Balanced cold supply for showers or bidet only

All replacement parts must be supplied by OSO HOTWATER (UK) LIMITED.
To obtain the address of a local stockist contact:

OSO HOTWATER (UK) LTD.
E15 Marquis Court - Team Valley Trading Estate - Gateshead - Tyne&Wear, NE11 0RU
Phone: (0191) 482 0800 • Fax: (0191) 491 3655 • www.oso-hotwater.com

E-mail: technical.uk@oso-hotwater.com • spareparts.uk@oso-hotwater.com • sales.uk@oso-hotwater.com

IT IS THE RESPONSIBILITY OF THE INSTALLER TO COMPLETE THIS LOGBOOK AND PASS IT ON TO THE CUSTOMER. FAILURE TO DO SO MAY INVALIDATE THE CYLINDER GUARANTEE

The code of practice for the installation, commissioning & servicing of mains pressure hot water storage

Installation, Commissioning and Service Record Log Book

CUSTOMER DETAILS

NAME _____

ADDRESS _____

TEL No. _____

IMPORTANT

1. Please, keep the Log Book in a safe place for future reference.
2. This Log Book is to be completed in full by the competent person(s) who commissioned the equipment and then handed to the customer. When this is done, the Log Book is a commissioning certificate that can be accepted as evidence of compliance with the appropriate Building Regulations.
3. Failure to install and commission this appliance to the manufacturer's instructions may invalidate the guarantee.

The above does not affect your statutory rights.

Benchmark is supported by

hot water association
DEVELOPING HOT WATER

© HEATING AND HOTWATER INFORMATION COUNCIL

INSTALLER & COMMISSIONING ENGINEER DETAILS

INSTALLER DETAILS

COMPANY NAME **DATE**

ADDRESS

INSTALLER NAME **TEL No.**

REGISTRATION DETAILS

REGISTERED OPERATIVE ID CARD No.
(IF APPLICABLE)

COMMISSIONING ENGINEER (IF DIFFERENT)

NAME **DATE**

ADDRESS

TEL No.

REGISTRATION DETAILS

REGISTERED OPERATIVE ID CARD No.
(IF APPLICABLE)

GUARANTEE - OSO UNVENTED HOTWATER CYLINDER

The OSO stainless steel inner vessel is guaranteed against material defect or manufacturing faults for a period of 25 years from the date of purchase. All other parts including, but not limited to factory fitted electrical elements (damage caused by lime scale excluded), expansion vessel, thermostats and valves are guaranteed against material defects or manufacturing faults for 2 years from the date of purchase. In the event of a replacement component being required OSO Hotwater will supply such part(s) free of charge and freight paid, on condition that the defective component is delivered, freight paid to OSO Hotwater within 2 weeks of written notice being given to OSO Hotwater of the defect. Such replacement parts shall be guaranteed under the terms of this guarantee to the unexpired period of the aforementioned 2 year period.

This warranty is conditional upon the OSO cylinder being installed in compliance with the OSO Installation & Maintenace Instructions, all current legislation, codes of practice and regulations governing the installation of unvented hot water cylinders in force at the date of installation and provided that:

1. The water quality shall be in accordance with European Council Directive 98/83 EC, or revised version at the date of installation, and is not fed with water from a private supply.
   Particular:Chloride content: Max. 250 mg/l
   Sulphate content: Max. 250 mg/l
   Combination Chloride/sulphate: Max. 300 mg/l (in total)
2. The OSO cylinder is filled with water before turning the electricity supply on to the heater elements.
3. The benchmark certificate is completed at the time of installation.
4. The OSO cylinder is serviced and maintained every 12 months and is marked as such in the benchmark logbook provided with the cylinder. Invoices for the maintenance work should be kept as proof of regular maintenance. Care should be taken of the logbook and invoices as they serve as the guarantee certificate for the cylinder.
5. If the newly fitted water heater is not in regular use then it must be flushed through with fresh water for at least 15 minutes. Open at least one hot water tap once per week, during a period of at least 4 weeks.
6. The OSO unvented cylinder has not been modified in any way other than by OSO Hotwater and is only used for the storage of potable water.
7. No factory fitted parts have been removed for unauthorised repair or replacement.
8. Defects caused by frost, excess pressure, salt dehardner process, transient voltage, lightning strikes or incorrect installation, repair or use, are not covered by this warranty. A laboratory evaluation of possible defects can be ordered by the user, however the user must pay for this where the above mentioned conditions have not been fulfilled. Evidence of the purchase date and the date of supply must also be submitted with your claim.
9. To validate the warranty the user must complete and return the warranty card supplied accompanied by proof of purchase within 60 days of purchase. Evidence of the purchase date and the date of supply / installation must be submitted.

This guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO COMPLETE THIS LOGBOOK AND PASS IT ON TO THE CUSTOMER. FAILURE TO DO SO MAY INVALIDATE THE CYLINDER GUARANTEE

APPLIANCE & TIME CONTROL DETAILS

MANUFACTURER OSO HOTWATER (UK)			MODEL
CAPACITY	litres		SERIAL No.
TYPE	UNVENTED		
TIME CONTROL	PROGRAMMER ☐	or	TIME SWITCH ☐

COMMISSIONING PROCEDURE INFORMATION

BOILER PRIMARY SETTINGS (INDIRECT HEATING ONLY) ALL BOILERS

IS THE PRIMARY A SEALED OR OPEN VENTED SYSTEM?	SEALED ☐ OPEN ☐
WHAT IS THE BOILER FLOW TEMPERATURE?	____ °C

ALL MAINS PRESSURISED SYSTEMS

WHAT IS INCOMING STATIC COLD WATER PRESSURE AT THE INLET TO THE PRESSURE REDUCING VALVE?	____ bar
HAS STRAINER (IF FITTED) BEEN CLEANED OF INSTALLATION DEBRIS?	YES ☐ NO ☐
HAS A WATER SCALE REDUCER BEEN FITTED?	YES ☐ NO ☐
WHAT TYPE OF SCALE REDUCER HAS BEEN FITTED?	

UNVENTED SYSTEMS

ARE COMBINED TEMPERATURE AND PRESSURE RELIEF VALVE AND EXPANSION VALVE FITTED AND DISCHARGE TESTED?	YES ☐ NO ☐
IS PRIMARY ENERGY SOURCE CUT OUT FITTED (NORMALLY 2 PORT VALVE)?	YES ☐ NO ☐
WHAT IS THE PRESSURE REDUCING VALVE SETTING (IF FITTED)?	____ bar
WHERE IS OPERATING PRESSURE REDUCING VALVE SITUATED?	YES ☐ NO ☐
HAS THE EXPANSION VESSEL OR INTERNAL AIR SPACE BEEN CHECKED?	YES ☐ NO ☐
WHAT IS THE HOT WATER TEMPERATURE AT THE NEAREST OUTLET?	____ °C

ALL PRODUCTS

DOES THE HOT WATER SYSTEM COMPLY WITH THE APPROPRIATE BUILDING REGULATIONS?	YES ☐
HAS THE SYSTEM BEEN INSTALLED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS?	YES ☐
HAVE YOU DEMONSTRATED THE OPERATION OF THE SYSTEM CONTROLS TO THE CUSTOMER?	YES ☐
HAVE YOU LEFT ALL THE MANUFACTURER'S LITERATURE WITH THE CUSTOMER?	YES ☐

COMPETENT PERSON'S SIGNATURE	CUSTOMER'S SIGNATURE

(To confirm demonstrations of equipment and receipt of appliance instructions)

PLEASE FOLLOW THE INSTALLATION AND COMMISSIONING INSTRUCTIONS IN THE INSTALLATION MANUAL SUPPLIED WITH THE EQUIPMENT

SERVICE INTERVAL RECORD

It is recommended that your hot water system is serviced regularly and that your service engineer completes the appropriate Service Interval Record belos.

SERVICE PROVIDER

Before completing the appropriate Service Interval Record below, please ensure you have carried out the service as described in the manufacturer's instructions and in compliance with all relevant codes of practice.

SERVICE 1 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 2 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 3 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 4 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 5 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 6 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 7 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 8 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 9 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 10 **DATE:**

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

HWSLB First Edition 01.03.03

When all the above services have been completed, please contact your Service Engineer for an additional service interval record sheet.